Claims

1. A modified iodoxybenzoic acid compound having generally the following structure:

- 2. A method of synthesizing a modified iodoxybenzoic acid compound from 3-nitrophthalic acid comprising:
- (a) esterification of 3-nitrophthalic acid using a corresponding acid chloride, to produce a nitrodiester;
 - (b) catalytic hydrogenation of said nitrodiester, to produce an aminodiester;
- (c) diazotization of said amonidiester by iodination of said aminodiester, to produce dimethly 3-iodophthalate;
 - (d) saponification of said dimethly 3-iodophthalate;
- (e) acidification of said dimethly 3-iodophthalate, to produce 3-iodophthalic acid; and
- (f) oxidation of said 3-iodophthalic acid to produce a modified iodoxybenzoic acid compound having generally the following structure:

3. A method of oxidizing a substrate comprising reacting said substrate with a modified iodoxybenzoic acid compound having generally the following structure:

- 4. The method of claim 3 wherein said substrate is an allylic alcohol.
- 5. The method of claim 3 wherein said substrate is a benzylic alcohol.
- 6. The method of claim 3 wherein the oxidation reaction between said substrate and said modified iodoxybenzoic acid compound takes place in an aqueous solution.
- 7. The method of claim 3 wherein said substrate is selected from the group consisting of 2-Buten-1-ol, *trans*-2-Hexen-1-ol, *trans*-3-Phenyl-2-propen-1-ol, Hydroxymethylbenzene, 4-Nitrobenzenemethanol, 4-Bromobenzenemethanol, 4-Methoxybenzenemethanol, 1,2-Benzenedimethanol, 1-(3-Nitrophenyl)ethanol α-Methyl-3-nitrobenzenemethanol, 1,2-Diphenyl-1,2-ethanediol, 1-Phenyl-1,2-ethanediol and 4-(3-Hydroxypropoxy)benzenemethanol.